



# **Defense Standardization Achievement Award**

## **Defense Logistics Agency Standardization of Fuels Equipment, Training, and Laboratory Operations**

### **Panel Presentation**


March 4, 2008




# Warfighter Focus



## DEFENSE ENERGY SUPPORT CENTER'S MISSION

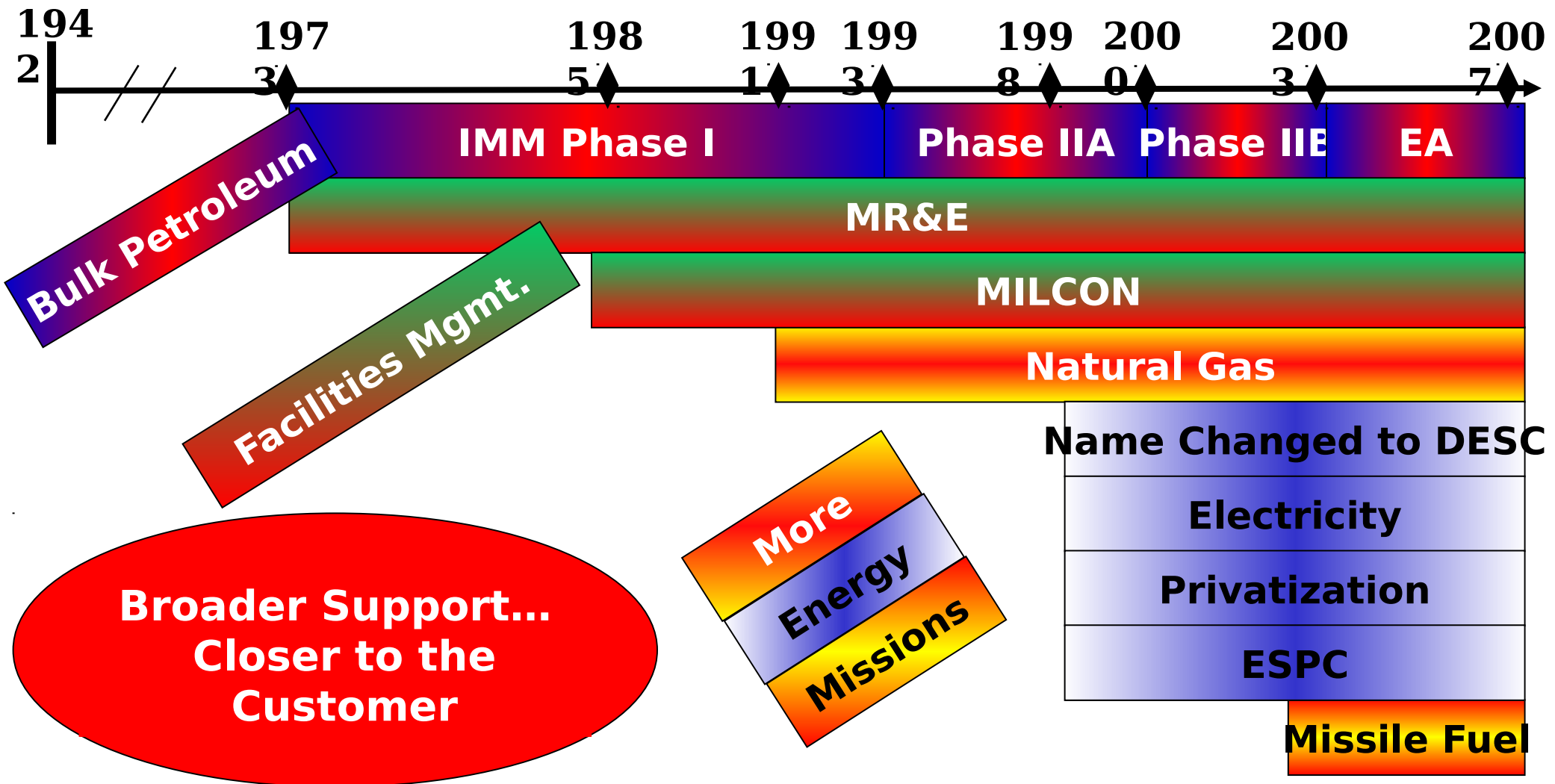


*To Provide The Department Of Defense,  
And Other Government Agencies,  
With Comprehensive Energy Solutions In The  
Most Effective And Efficient Manner Possible.*





# Defense Energy Support Center's Evolving Mission



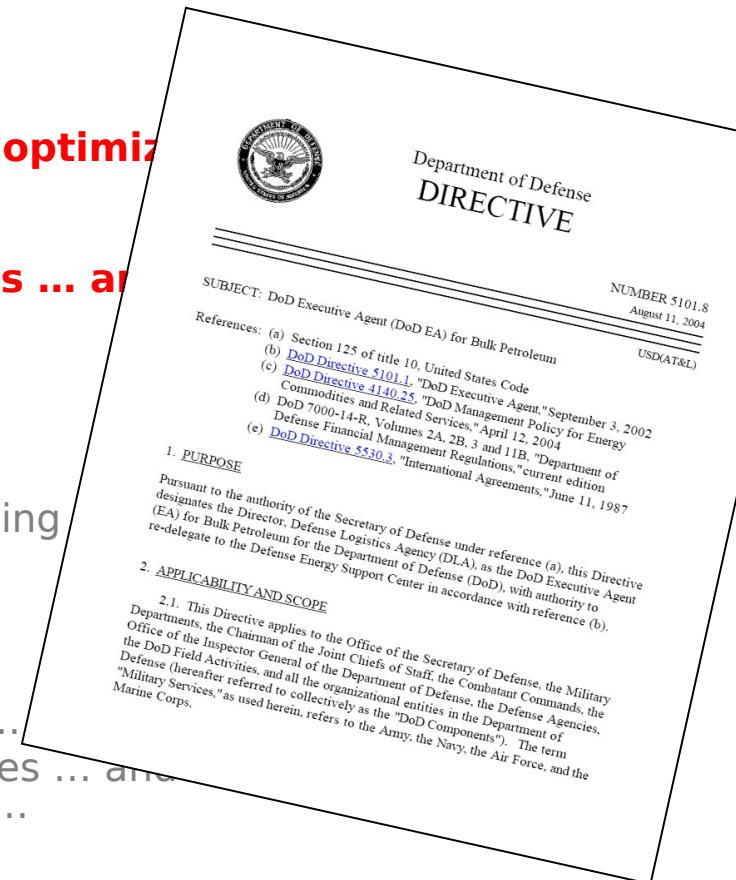


# Defense Energy Support Center as Executive Agent for Bulk Petroleum



## DoDD 5101.8, DoD Executive Agent for Bulk Petroleum (Aug 04)

- Defense Logistics Agency (DESC) shall:
  - Execute Supply Chain Management ...
  - Share and leverage DoD resources ...
  - **Ensure standardization and interoperability ... and optimize equipment life-cycles**
  - Expand joint petroleum training ...
  - **Develop standardized quality policy and procedures ... and adopt commercially based standards**
- Combatant Commanders shall:
  - Integrate EA into joint operations planning and execution
  - Integrate EA analysis and recommendations during planning
  - Provide assessment of EA effectiveness and efficiency
- Military Departments shall:
  - Budget and fund reimbursement for goods and services ...
  - Ensure organic capabilities exist to meet EA responsibilities ... and provide force structure to install and operate equipment ...
  - Provide assessment of EA effectiveness and efficiency
  - Comply with standardized equipment and training recommendations





# DESC's Award Package



## Bulk Petroleum Supply Chain Standardization Opportunities

- Dozens identified in the DESC Executive Agent 10-year Roadmaps
- The Current EA “Lightning Rods”
  - Fuel Bladders
  - Single Point Refueling Nozzles
  - Fuel Filter Elements
  - Fuels Quality Training
  - Fuels Laboratory Operations Optimization

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# Fuel Bladders



- Problem: Catastrophic ruptures, manpower intensive leak repair, deliberate fuel inventory reductions to extend bladder use life, and an average use life of just over one year
- Statements of Need ... in work:
  - ✓ Developing a holistic approach to bladder management
  - ✓ Providing a viable collapsible fuel bladder using a performance-based specification
  - Improving the life cycle management program
    - Partnership with Industry
    - Centralized Acquisition
    - Quality Assurance
    - Continuance of Research & Development Efforts
    - Improvements in Storage & Maintenance

**EA Equipment & Training Focus Area  
is improving support to the warfighter!**

<u>Then (2003 - Pre</u> 	<u>Now (2008)</u> 
<b>Multiple mil specs &amp; purchase descriptions</b>	<b>Single Performance Specification (Dec 06) - all bladder sizes</b>
<b>Bladder performance difficulties (multiple field-level QDRs)</b>	<b>1<sup>st</sup> acquisition currently in First Article Test</b>
<b>Use Life: 1 year</b>	<b>Use Life: 3+ years</b>
<b>Buying Activities: Army, USMC, USAF, DLA</b>	<b>Buying Activities: Working joint-use procurements &amp; centralization (potential \$100M in DoD cost)</b>





# Single Point Refueling Nozzles



- The standard for aircraft pressure refueling nozzles in commercial and military applications past due for revision
- 2 year effort. SAE Aerospace Standard - AS5877 (published Jun 07) updates existing refueling nozzle class definitions and adds the new military D-3 variant
  - Increases efficiency
  - Provides greater flexibility in truck, fill-stand, and hydrant operations
- Savings are dependent on the effective replacement factor associated with D-1 & D-2 items

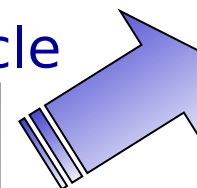




# Fuel Filter Elements



- Currently 30 different element types/sizes used in military fuel operations
- Focus is on design of new facilities and equipment vice modification of existing filter/separator vessels
- Coordinated 6 API elements for future use (2 year effort)
- Standardization will take place through attrition
- Potential \$14.5M cost savings across the life cycle
  - Program management
  - Operations
  - Maintenance
  - Disposal







# Fuels Quality Training



- Challenge: Separate training by the Military Services (ownership issue)
  - Air Force - Sheppard AFB, TX
  - Army/Marine Corps - Fort Lee, VA
- Course standardization and consolidation at Fort Lee proved to be prudent and supportive of Service interaction
- Worked with the Inter-Service Training Review Organization (ITRO) for 2 ½ years
  - First joint class: Feb 07
  - Cost Avoidance: ~ \$240K/yr





# Summary



- In 2007, the DESC Executive Agent Office culminated 5 long-term efforts involving all of the Military Services and touching operations in most of the COCOMs
- Total tangible potential payoff for the “lightning rod” initiatives: \$119M over a 20 year life cycle
- This award recognizes not just DESC but also the willingness of the fuel community to reach for efficiencies and effectiveness across the petroleum downstream supply chain



**Thank you!**